

# Inflatable Capsule Recovery Raft using OTS Pontoons and Other Components, Phase I

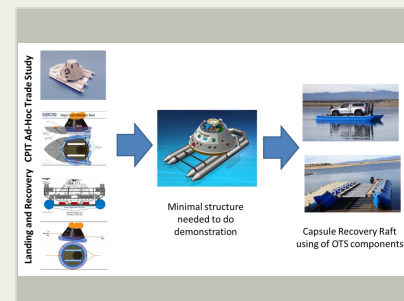
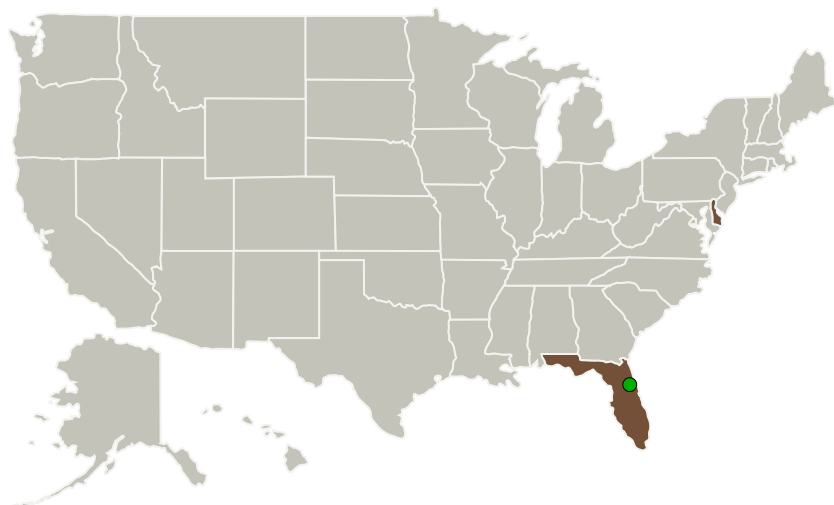
Completed Technology Project (2017 - 2017)



## Project Introduction

The objective of the proposed innovation is to research and study the feasibility of using pontoons (based on Off the Shelf (OTS) equipment) to make an inflatable raft that will support a water-landed space capsule. The advantages of this approach over traditional methods are: 1) Provides stable platform to open hatch for Flight Crew access/egress in less than 1 hour from the time the recovery vessel reaches the capsule, 2) Does not drive an increase in flight weight of capsule, 3) Protects the capsule during handling and loading operations, 4) Can be deployed from different types of vessels, 5) Allows for launch and recovery from support vessels with Combat Rubber Raiding Craft (CRRC) or Rigid-hull Inflatable Boat (RHIBs), 6) Minimizes operations in turbulent wake zone of ship, 7) Raft draws very little water, 8) Transports on standard commercial carriers in deflated and stowed condition, 9) Minimal pre-op set-up time on recovery vessel, 10) Based on existing technologies resulting in low technical and operational risks.

## Primary U.S. Work Locations and Key Partners



Inflatable capsule recovery raft using OTS pontoons and other components, Phase I Briefing Chart Image


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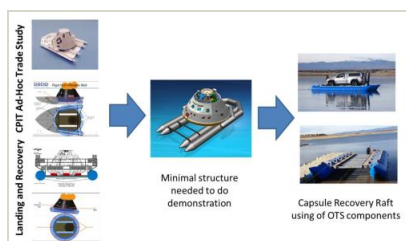


Organizations Performing Work	Role	Type	Location
ASRC Federal System Solutions, LLC	Lead Organization	Industry	
 Kennedy Space Center(KSC)	Supporting Organization	NASA Center	Kennedy Space Center, Florida

## Primary U.S. Work Locations

Delaware	Florida
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## Images



### Briefing Chart Image

Inflatable capsule recovery raft using OTS pontoons and other components, Phase I Briefing Chart Image

(<https://techport.nasa.gov/image/137040>)

## Organizational Responsibility

### Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

### Lead Organization:

ASRC Federal System Solutions, LLC

### Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

## Project Management

### Program Director:

Jason L Kessler

### Program Manager:

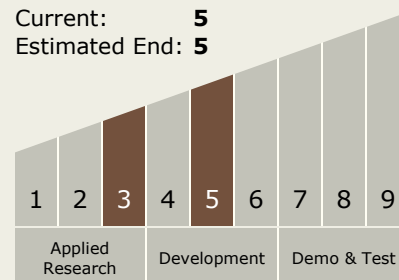
Carlos Torrez

### Principal Investigator:

Gary R Rohrkaste

## Technology Maturity (TRL)

Start: **3**  
Current: **5**  
Estimated End: **5**



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## Technology Areas

### Primary:

- TX13 Ground, Test, and Surface Systems
  - └ TX13.3 Assembly, Integration and Launch
    - └ TX13.3.3 Launch, Recovery and Reutilization

## Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System